



Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3738
Examiner Name	Not Yet Known
Attorney Docket Number	23085-08887

Sheet 1 of 5

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
60	A1	US-2005/0104548 A1	05-19-2005	Takenaka et al.
	A2	US-2005/0102111 A1	05-12-2005	Dariush et al.
	A3	US-2004/0158175 A1	08-12-2004	Ikeuchi et al.
	A4	US-2004/0158175 A1	08-12-2004	Ikeuchi et al.
	A5	US-6,785,591 B1	08-31-2004	Hansson
	A6	US-6,750,866 B1	06-15-2004	Anderson III
	A7	US-2004/0107780 A1	06-10-2004	Kawai et al.
	A8	US 6,750,866 B1	06-15-2004	Anderson, Frank
	A9	US-2004/0102723 A1	05-27-2004	Horst
	A10	US-6,633,783 B1	10-14-2003	Dariush et al.
	A11	US-6,505,096	01-07-2003	Takenaka et al.
	A12	US-2003/0023415 A1	01-30-2003	Nakamura et al.
	A13	US-2003/0018283 A1	01-23-2003	Dariush
	A14	US-6,289,265	09-11-2001	Takenaka et al.
	A15	US-6,161,080	12-12-2000	Aouni-Ateshian et al.
	A16	US-6,152,890	11-28-2000	Kupfer et al.
	A17	US-5,982,389	11-09-1999	Guenther et al.
	A18	US-5,835,693	11-10-1998	Lynch et al.
	A19	US-5,808,433	09-15-1998	Tagami et al.
	A20	US-5,432,417	07-11-1995	Takenaka et al.
	A21	US-5,362,288	11-08-1994	Razon
	A22	US-5,136,227	08-04-1992	Nakano et al.
	A23	US-5,044,360	09-03-1991	Janke
	A24	US-4,834,200	05-30-1989	Kajita
	A25	US-4,788,847	11-22-1988	Daggett et al.
	A26	US-4,244,120	01-13-1981	Harris

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1619211.1

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT****Complete if Known**

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3738
Examiner Name	Not Yet Known
Attorney Docket Number	23085-08887

Sheet 2 of 5

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ – Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
GA	B1	JP 2000-249570	09-14-2000	Nippon Telegr & Teleph Corp	
GA	B2	RU 2 107 328 C1	03-20-1998	Nurislamovich, Latypov (English Abstract only)	
GA	B3	WO 00/35346	06-22-2000	Stanford University	

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-Issue number(s), publisher, city and/or country where published	T ⁶
GA	C1	AGARWAL, S.K. et al., "Theory and Design of an Orthotic Device for Full or Partial Gravity-Balancing of a Human Leg During Motion," IEEE Transactions on Neural Systems and Rehabilitation Engineering, June 2004, Vol. 12, No. 2.	
	C2	AKHLAGHI, F. et al., "In-shoe Biaxial Shear Force Measurement: the Kent Shear System," Medical & Biological Engineering & Computing, July 1996, Vol. 34, pp. 315-317.	
	C3	ANDERSON, Frank C., "Static and Dynamic Optimization Solutions for Gait are Practically Equivalent", Journal of Biomechanics, 2001, Vol. 34, pp. 153-161	
	C4	ANDERSON, F. et al., "Dynamic Optimization of Human Walking," Journal of Biomechanical Engineering, October 2001, Vol. 123, pp. 381-390.	
	C5	ANDERSSON, R. et al., "Numerical Differentiation Procedures for Non-Exact Data," Numerische Mathematik, 1974, Vol. 22, pp. 157-182.	
	C6	ATKESON, C.G., "Learning Arm Kinematics and Dynamics", Annual Reviews, Inc., 1989, Vol. 12, pp. 157-183	
	C7	BÄRUB, H., Analytical Dynamics, Chapter 7, Rigid Body Kinematics, McGraw-Hill, 1999, pp. 355-371.	
	C8	BLAYA, J., "Force-Controllable Ankle Foot Orthosis (AFO) to Assist Drop Foot Gait," February 2003, web.mit.edu/blaya/www/MStthesis_final.pdf	
	C9	BRONZINO, J.D., ed., "The Biomedical Engineering Handbook", IEEE Press, 2 nd Ed. Vol. 2, 2000, Chapter 142, pp. 1-17	
	C10	BURDEA, G. ET AL., "Virtual Reality Technology", 1994, pp. 33-37, John Wiley and Sons, Inc.	
	C11	BUSBY, H.R. et al., "Numerical Experiments With a New Differentiation Filter," Transactions of the ASME - Journal of Biomechanical Engineering, November 1985, Vol. 107, pp. 293-299.	
	C12	CHAO, E.Y. et al., "Application of Optimization Principles in Determining the Applied Moments in Human Leg Joints During Gait," J. Biomechanics, 1973, Vol. 6, pp. 497-510, Pergamon Press, Great Britain.	
GA	C13	CRAIG, J.J., "Nonlinear Control of Manipulators," Introduction to Robotics Mechanics and Control, 2 nd Ed., 1989, Chapter 10, PP. 333-361.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1619211.1


INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete If Known

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3738
Examiner Name	Not Yet Known
Attorney Docket Number	23085-08887

Sheet 3 of 5

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
	C14	CROWNINSHIELD, R.D. et al., "A Physiologically Based Criterion Of Muscle Force Prediction In Locomotion," <i>Journal of Biomechanics</i> , Vol. 14, No. 11, 1981, pp. 793-801.	
	C15	CULLUM, J., "Numerical Differentiation and Regularization," <i>SIAM J. Numer. Anal.</i> , June 1971, Vol. 8, No. 2, pp. 254-265.	
	C16	DARIUSH, B. et al., "Multi-Modal Analysis of Human Motion From External Measurements," <i>Transactions of the ASME</i> , June 2001, Vol. 123, pp. 272-278.	
	C17	DARIUSH, B., "A Novel Algorithm For Generating A Forward Dynamics Solution To The Traditional Inverse Dynamics Problem," in <i>4th World Congress of Biomechanics</i> , Calgary, Canada, 2002.	
	C18	DARIUSH, B., "A Forward Dynamics Solutions To Multi-Modal Inverse Dynamics Problems," in <i>International Society of Biomechanics, XIXth Congress</i> , Dunedin, NZ, 2003.	
	C19	DARIUSH, B., "A Well-Posed, Embedded Constraint Representation of Joint Moments From Kinesiological Measurements," <i>Journal of Biomechanical Engineering</i> , August 2000, Vol. 122, pp.437-445.	
	C20	DELP, S. et al., "A Computational Framework for Simulating and Analyzing Human and Animal Movement," <i>IEEE Computing in Science and Engineering</i> , Vol. 2, No. 5, 2000, pp.46-55.	
	C21	DOHRMANN, C.R. et al., "Smoothing Noisy Data Using Dynamic Programming and Generalized Cross-Validation" <i>Transactions of the ASME – Journal of Biomechanical Engineering</i> , February 1988, Vol. 110, pp. 37-41.	
	C22	FLANAGAN, R.J., et al., "The Role of Internal Models in Motion Planning and Control: Evidence from Grip Force Adjustments During Movements of Hand-Held Loads", <i>The Journal of Neuroscience</i> , February 15, 1997, Vol. 17(4), pp. 1519-1528	
	C23	GIAKAS, G. et al., "A Comparison of Automatic Filtering Techniques Applied to Biomechanical Walking Data," <i>J. Biomechanics</i> 1997, Vol. 00, No. 00, 4 pages.	
	C24	GIAKAS, G. et al., "Optimal Digital Filtering Requires a Different Cut-Off Frequency Strategy for the Determination of the Higher Derivatives," <i>J. Biomechanics</i> , April 1997, Vol. 28, No. 00, 5 pages.	
	C25	GROOD, E.S. et al., "A Joint Coordinate System for the Clinical Description of Three Dimensional Motions: Application to the Knee," <i>Journal of Biomechanical Engineering</i> , 1983, pp. 136-144, No. 105.	
	C26	GRUBER, K., et al., "A Comparative Study of Impact Dynamics: Wobbling Mass Model Versus Rigid Body Models", <i>Journal of Biomechanics</i> , 31 (1998), pp. 439-444	
	C27	HATZE, H. "The Use of Optimally Regularized Fourier Series for Estimating Higher-Order Derivatives of Noisy Biomechanical Data," <i>J. Biomechanics</i> , 1981, Vol. 14, pp. 13-18.	
	C28	HAYASHIBARA, Y. et al., "Design of a Power Assist System with Consideration of Actuator's Maximum Torque," 4 th IEEE International Workshop on Robot and Human Communication, RO-MAN'95, Tokyo, July 5-7, 1995, pp. 379-384, [online] Retrieved from the Internet<URL: http://ieeexplore.ieee.org/xpl/abs_free.jsp?arnumber=531990 >	
	C29	HEMAMI, H., "A Feedback On-Off Model of Biped Dynamics", <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , July	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1619211.1

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT****Complete If Known**

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3738
Examiner Name	Not Yet Known
Attorney Docket Number	23085-08887

Sheet 4 of 5

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
DD		1980, Vol. SMC-10, No. 7, pp. 376-383	
	C30	HEMAMI, H. et al., "Modeling And Control Of Constrained Dynamic Systems With Application To Biped Locomotion In The Frontal Plane," <i>IEEE Transactions on Automatic Control</i> , Vol. 4, No. 4, August 1979, pp. 526-535.	
	C31	HEMAMI, H., "A State Space Model for Interconnected Rigid Bodies," <i>IEEE Trans. on Automatic Control</i> , 1982, pp. 376-382, Vol. 27, no. 2.	
	C32	HOSEIN, R. et al., "A Study of In-shoe Plantar Shear in Normals," <i>Clinical Biomechanics</i> , 2000, Vol. 15, pp. 46-53.	
	C33	HUNGSPREUGS, P. et al., "Muscle Force Distribution Estimation Using Static Optimization Techniques", Technical Report – Honda R&D Americas	
	C34	JALICS, L. et al., "A Control Strategy for Terrain Adaptive Bipedal Locomotion," <i>Autonomous Robots</i> , 1997, pp. 243-257, Vol. 4.	
	C35	JEZERNEK, S. et al., "Robotic Orthosis Lokomat: A Rehabilitation and Research Tool," <i>Neuromodulation</i> , 2003, pp. 108-115, Vol. 6, No. 2.	
	C36	KAWATO, M., "Adaptation and Learning in Control of Voluntary Movement by the Central Nervous System", 1989, <i>Advanced Robotics</i> , Vol. 3, pp. 229-249	
	C37	KAWATO, M., et al., "The Cerebellum and VOR/OKR Learning Models", Elsevier Science Publishers Ltd., 1992, Vol. 15, No. 11, pp. 445-453	
	C38	KAWATO, M., "Internal Models for Motor Control and Trajectory Planning," <i>Current Opinion in Neurobiology</i> , 1999, pp. 718-727, No. 9.	
	C39	KHATIB, O., "A Unified Approach For Motion And Force Control Of Robot Manipulators: The Operational Space Formulation," <i>IEEE Journal of Robotics and Automation</i> , RA-3(1), 1987, pp. 43-53.	
	C40	KLEIN, C. A. et al., "Review Of Pseudoinverse Control For Use With Kinematically Redundant Manipulators," <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , Vol. 13, No. 2, 1983, pp. 245-250.	
	C41	PARK, J.H. et al., "Biped Robot Walking Using Gravity-Compensated Inverted Pendulum Mode and Computed Torque Control, 1998 IEEE Conference on Robotics and Automation, May 16-20, 1998, pp. 2528-2533, Vol. 4, [online] Retrieved from the Internet <URL: http://ieeexplore.ieee.org/xpl/abs_free.jsp?arnumber=680985 >	
	C42	PIAZZA, S. et al., "Three-Dimensional Dynamic Simulation of Total Knee Replacement Motion During a Step-up Task," <i>Journal of Biomechanical Engineering</i> , Vol. 123, 2001, pp.599-606.	
	C43	RAHMAN, T. et al., "A Simple Technique to Passively Gravity-Balance Articulated Mechanisms," <i>Journal of Mechanical Design</i> , 1995, pp. 655-658, Vol. 117, No. 4.	
	C44	RUNGE, C.F. et al., "Estimating Net Joint Torques From Kinesiological Data Using Optimal Linear System Theory," <i>IEEE Transactions on Biomedical Engineering</i> , December 1995, Vol. 42, No. 12, pp. 1158-1164.	
DD	C45	SHADMEHR, R. et al., "Interference in Learning Internal Models of Inverse Dynamics In Humans," <i>Advances in Neural</i>	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1619211.1

Substitute for form 1449/APTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT****Complete If Known**

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3738
Examiner Name	Not Yet Known
Attorney Docket Number	23085-08887

Sheet 5 of 5

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
<i>160</i>		Information Processing Systems, 1995, pp. 1117-1224, Chapter 7.	
	C46	SHADMEHR, R., "Learning Virtual Equilibrium Trajectories for Control of a Robot Arm", Neural Computation, 1990, Vol. 2, pp. 436-446	
	C47	SIMONS, W. et al., "Differentiation of Human Motion Data Using Combined Spline and Least Squares Concepts," Journal of Biomechanical Engineering, Transactions of the ASME, August 1991, Vol. 113, pp. 348-351.	
	C48	THELEN, D. et al., "Generating Dynamic Simulations of Movement Using Computed Muscle Control," Journal of Biomechanics, 36, 2003, pp. 321-328.	
	C49	Transmittal of the International Search Report, PCT/US02/20829, December 12, 2002, 4 pages.	
	C50	"Unsupported Standing with Minimized Ankle Muscle Fatigue," [online] Retrieved from the Internet<URL: http://ieeexplore.ieee.org/iel5/10/29163/01315854.pdf >	
	C51	VAUGHAN, C. L. et al., "Appendix B., Detailed Mathematics Used in GaitLab," Dynamics of Human Gait, Second Edition, Kiboho Publishers, Cape Town South Africa, 1999, pp. 83-106.	
	C52	VUKOBRATOVIC, M. et al., Scientific Fundamentals of Robotics 7: Biped Loco-motion. Springer-Verlag, 1990, pp. 17-27.	
	C53	WINTER, D.A., "Kinetics: Forces and Moments of Force," Biomechanics and Motor Control of Human Movement, 2 nd Ed., New York, 1990, Chapter 4.	
	C54	WITTENBERG, J., Dynamics of Systems of Rigid Bodies, 1977, B.G. Teubner Stuttgart, 1977, pp. 29-30..	
	C55	WOLPERT, D.M., et al., "Ocular Limit Cycles Induced by Delayed Retinal Feedback", Experimental Brain Research, 1993, Vol 96, pp. 173-180	
	C56	WOLTRING, H.J., "A Fortran Package for Generalized, Cross Validatory Spline Smoothing and Differentiation," Adv. Eng. Software, 1986, Vol. 8, No. 2, pp. 104-107.	
	C57	WOLTRING, H.J., "On Optimal Smoothing and Derivative Estimation From Noisy Displacement Data in Biomechanics," Human Movement Science, Vol. 4, 1985, pp. 229-245.	
	C58	Written Opinion, PCT/IB02/04311, February 20, 2003, 2 pages.	
<i>60</i>	C59	ZAJAC, F.E., "Muscle and Tendon Properties, Models, Scaling, and Application to Biomechanics and Motor Control", 1989, Vol. 17, Issue 4, pp. 359-411	

Examiner Signature	<i>Andrew D. B. [Signature]</i>	Date Considered	11/23/7
--------------------	---------------------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1619211.1



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Complete If Known

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3771
Examiner Name	Danton D. Demille
Attorney Docket Number	23085-08887

Sheet

1

of

1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
DA		US-6,580,969	06-17-2003	Ishida et al.

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶

Examiner
Signature

Date
Considered

4/23/7

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1671769.1

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application No.	10/824,059
Filing Date	April 13, 2004
First Named Inventor	Behzad Dariush
Art Unit	3771
Examiner Name	Danton D. Demille
Attorney Docket Number	23085-08887

Sheet 1 of 2

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
A	A1	US-7,135,003	11-15-2006	Dariush
	A2	US-7,112,938	09-26-2006	Takenaka et al.
	A3	US-2006/0139355 A1	06-29-2006	Tak et al.
	A4	US-2006/0100818 A1	05-11-2006	Nakamura et al.
	A5	US-7,013,201	03-15-2006	Hattori et al.
	A6	US-2006/0046909 A1	03-02-2006	Rastegar et al.
	A7	US-2005/0209535 A1	09-22-2005	Dariush
	A8	US-6,943,520	09-13-2005	Furuta et al.
	A9	US-2004/0254771 A1	12-16-2004	Riener et al.
	A10	US-2004/0249319 A1	12-09-2004	Dariush
	A11	US-2004/0193318 A1	09-30-2004	Ito
	A12	US-6,766,204	07-20-2004	Niemeyer et al.
	A13	US-6,640,160	10-28-2003	Takahashi et al.
	A14	US-6,445,983	09-03-2002	Dickson et al.
	A15	US-6,076,025	06-13-2000	Ueno
	A16	US-6,045,524	04-04-2000	Hayashi et al.
	A17	US-5,942,869	08-24-1999	Katou et al.
	A18	US-5,706,589	01-13-1998	Marc
	A19	US-5,659,480	08-19-1997	Anderson et al.
	A20	US-5,625,577	04-29-1997	Kunii et al.
	A21	US-5,459,659	10-17-1995	Takenaka
	A22	US-5,323,549	06-28-1994	Segel et al.
	A23	US-5,247,432	09-21-1993	Ueda

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1684858.1

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application No.	10/824,059
				Filing Date	April 13, 2004
				First Named Inventor	Behzad Dariush
				Art Unit	3771
				Examiner Name	Danton D. Demille
Sheet	2	of	2	Attorney Docket Number	23085-08887

FOREIGN PATENT DOCUMENTS					
		Foreign Patent Document			
Examiner Initials*	Cite No. ¹				T ⁶

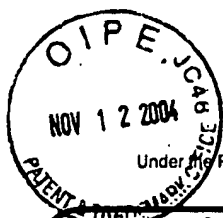
OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		
Examiner Initials*	Cite No. ¹			T ⁶
	C1	"Berkeley Researchers Developing Robotic Exoskeleton That Can Enhance Human Strength and Endurance," ScienceDaily LLC, 1995-2004, [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://bleex.me.berkeley.edu/bleexhistPDFs/sciencedaily.pdf >		
	C2	DURFEE, W.K., "Preliminary Design and Simulation of a Pneumatic, Stored-Energy, Hybrid Orthosis for Gait Restoration," Proceedings of IMECE04, 2004 ASME International Mechanical Engineering Congress, November 13-20, 2004, [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://www.me.umn.edu/~wkdurfee/publications/IMECE2004-60075.pdf >		
	C3	International Search Report and Written Opinion, PCT/US06/11727, November 9, 2006, 9 pages.		
	C4	ISAACS, P.M. et al., "Controlling Dynamic Simulation with Kinematic Constraints, Behavior Functions, and Inverse Dynamics," Computer Graphics, July 1987, pp. 215-224, Vol. 21, No. 4.		
	C5	MADIGAN, R.R., "Ankle-Foot Orthoses (AFO's) in Spastic Cerebral Palsy," Fillauer LLC, [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://www.fillauer.com/education/ED_afo.html#dynamic >		
	C6	PRATT, G.A. et al., "Active Orthotics for Helping the Neuromuscularly Impaired to Walk," [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://www.vcl.uh.edu/~rcv03/materials/grant/9733740.1064791086.pdf >		
	C7	"Regenerative Foot Braking," [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://www.halfbakery.com/ideal/regenerative_20foot_20braking#1069693200 >		
	C8	"Sensorless Fet Element DC Motor Driver," [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://robotx.sourceforge.net/bridge/bridge.shtml >		
	C9	TROST, F.J., "Energy-Storing Feet," JACPOC, 1989, Vol. 24, No. 4, [online] [Retrieved on October 9, 2006] Retrieved from the Internet<URL: http://jacpoc.oandp.com/library/1989_04_082.asp >		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.
 Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1684858.1



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application No.	10/824,059
				Filing Date	April 13, 2004
				First Named Inventor	Behzad Dariush
				Art Unit	3738
				Examiner Name	unknown
Sheet	1	of	1	Attorney Docket Number	23085-08887

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ⁶
	1	KATO, H. AND HIRATA, T., "The Concept of a Walking Assistance Suit", The Japanese Society of Mechanical Engineers, August 2001.			
	2	WELLS, R., MORRISEY, M. AND HUGHSON, R., "Internal Work and Physiological Responses During Concentric and Eccentric Cycle Ergometry", Eur. J. Appl. Physiol, 55: 295-301, 1986			
	3	GAGNON, M. AND SMYTH, G., "Muscular Mechanical Energy Expenditure as a Process for Detecting Potential Risks in Manual Materials Handling", J. Biomechanics, Vol. 24, No. 3/4; pp. 191-203, November 1991			
	4	WINTER, D.A., "Biomechanics and Motor Control of Human Movement", 2 nd Edition, John Wiley & Sons, Inc., pp. 51-74			
	5	GAGNON D., AND GAGNON, M., "The Influence of Dynamic Factors on Triaxial Net Muscular Moments at the L5/S1 Joint During Asymmetrical Lifting and Lowering", Journal of Biomechanics, Vol. 25, pp. 891-901, 1992			
	6	HSIANG, S.M., AND MCGORRY, R.W., "Three Different Lifting Strategies for Controlling the Motion Patterns of the External Load", Ergonomics, Vol. 40, pp. 928-939, 1997			

Examiner Signature		Date Considered	1/23/7
--------------------	--	-----------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23085/08887/DOCS/1475624.1